AMENDMENTS TO THE CLAIMS:

1. (Previously presented) A wavelength division multiplexing optical transmission method wherein n (n: 4 or a larger integer) input signal light channels are connected to be transmitted, said method comprising:

grouping transmittable n (n: 4 or a larger integer) input signal light channels into groups each having x channels (x: integer, 2 < x < n); and

for each group, whenever one or more of said x input channels does not currently include an input signal to be transmitted in said channel, transmitting a control light having a same power level as a total power of signal lights of said one or more missing input signals.

2. (Previously presented) A wavelength division multiplexing optical transmission method according to Claim 1, wherein:

in case the number of currently-transmitted signal lights in one group is smaller than x, the total level of the currently-transmitted signal lights and the control light is equal to a total possible level of transmittable x pieces of signal lights in the group.

3. (Previously presented) A wavelength division multiplexing optical transmission method according to Claim 1, wherein:

an optical transmission line on which said signal light and said control light are propagated is preset so that a wavelength characteristic of said optical transmission line is flat as would be in a case that light acquired by multiplexing n pieces of signal lights is propagated.

4. (Previously presented) A wavelength division multiplexing optical transmission method according to Claim 1, wherein:

a control light to be transmitted in each group has a same wavelength as that of a signal light last transmitted in the group if an input light signal were received in an input channel corresponding to said wavelength.

5. (Previously presented) A wavelength division multiplexing optical transmission method according to Claim 1, wherein:

the control light comprises a continuous wave (CW) light.

6. (Currently amended) A wavelength division multiplexing optical transmission method wherein there are n (n: 4 or a larger integer) input channels so that n pieces of signal lights can be transmitted if input light signals are present on each of said n input channels, said method comprising:

grouping said transmittable n (n: 4 or a larger integer) pieces of signal lights into groups each having x pieces (x: integer, $2 < x < n$); and

in each said group, ~~means for~~ transmitting a control light having a same power as a total power of signal lights that have not been received as input light signals to be transmitted in the group.

7. (Previously presented) A wavelength division multiplexing optical transmission system wherein n (n: 4 or a larger integer) channels of signal lights can be transmitted, said system comprising:

n signal light transmitters that can respectively receive an input signal and transmit a signal light as an input light signal to be transmitted, wherein said n signal light transmitters are classified into groups, each said group comprised of x of said signal light transmitters;

a plurality of first optical multiplexers, each said first optical multiplexer provided with x (x: integer, 2 < x < n) channels of signal light input ports from one of said groups, each said channel connected to an output of one of said n signal light transmitters;

an optical branching device associated with each said first optical multiplexer that branches light output from the first optical multiplexer;

a control light transmitter associated with each said first optical multiplexer that transmits a control light based upon a level of the branched light from the optical branching device, a wavelength of said control light corresponding to a wavelength of one of said x channels;

a second optical multiplexer that multiplexes light output from the first optical multiplexers;

an optical transmission line on which multiplexed light output from the second optical multiplexer is propagated;

an optical demultiplexer that demultiplexes the light transmitted via the optical transmission line into signal lights of respective different wavelengths; and

n optical receivers that receive the signal lights demultiplexed by the optical demultiplexer.

8. (Previously presented) A wavelength division multiplexing optical transmission system according to Claim 7, wherein:

the control light transmitter outputs a control light of power equivalent to provide a total power level that would be present if all of said x channels had signal lights therein.

9. (Previously presented) A wavelength division multiplexing optical transmission system according to Claim 7, wherein:

a control light has a same wavelength as that of a signal light last transmitted from said x channels of signal light transmitters corresponding to the control light transmitter.

10. (Previously presented) A wavelength division multiplexing optical transmission system according to Claim 7, wherein:

the optical transmission line is regulated so that a wavelength characteristic on said optical transmission line is flat in a case in which multiplexed light acquired by multiplexing n channels of signal lights is propagated.

11. (Previously presented) A wavelength division multiplexing optical transmission system according to Claim 7, wherein:

multiplexed light output from the second optical multiplexer has a level at which a wavelength characteristic on said optical transmission line is flat.

12. (Canceled)

13. (Previously presented) The method of claim 6, wherein, for each said group, said control light has a wavelength of an input channel that is last transmitted in said group.

14-16. (Canceled)

17. (Previously presented) An apparatus for wavelength division multiplexing optical transmission, said apparatus comprising:

n input signal ports, each associated with an input signal at a pre-set wavelength, *n* being an integer equal to or greater than 4, said *n* ports being separated into a plurality of groups, each said group having *x* channels respectively associated with *x* of said *n* input signal ports;

wherein, for each said group:

a first multiplexer receiving said *x* channels of said group and providing a multiplexed optical signal as an output thereof;

a control circuit branches off light in said multiplexed optical signal, measures said branched light, and provides a control light level signal; and

a control light generator generates a control light that compensates for any of said *x* channels that currently have no optical signal therein; and

a second multiplexer receiving an output of said first multiplexers of each said group and provides therefrom a multiplexed optical signal of said *n* channels for an optical transmission line.

18. (Previously presented) The apparatus of claim 17, wherein said optical transmission line has been balanced in a wavelength characteristic that is flat when all said *n* channels have an optical signal currently being transmitted.

19. (Previously presented) The apparatus of claim 18, wherein a wavelength of each said control light corresponds to a wavelength of one of said *n* channels.

20. (Previously presented) The apparatus of claim 19, wherein said wavelength of each said control light has been pre-set within each said group.